

Appl. No. : 09/235,084
Filed : January 21, 1999

REMARKS

Applicants respectfully request reconsideration of the present application in view of the following remarks. Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Office Interview

Applicants thank the Examiner for the office interview conducted August 13, 2003. During the interview, the reference to Norin was discussed with respect to Claims 6, 9, and 20.

Specifically, Applicants explained that Norin does not teach or suggest a gateway configured to allow multiple nodes on a computer network to communicate using one or more data protocols, wherein the one or more data protocols are transmitted over a network medium using a medium protocol, the gateway further providing an application programming interface to communicate with the multiple nodes, the gateway including an internal node database comprising information about nodes on a network, a software module configured to provide an active mode and a standby mode, the active mode configured to maintain the internal node database and to provide access to the node database, the standby mode configured to maintain the internal node database as a mirror copy of an external node database, and shims configured to translate rules into a rule definition language.

Moreover, Applicants explained that Norin does not teach or suggest a gateway configured to allow multiple nodes on a computer network to communicate using one or more data protocols, wherein the one or more data protocols are transmitted over a network medium using a medium protocol, the gateway further providing an application programming interface to communicate with the multiple nodes, the gateway including an internal node database comprising information about nodes on a network, and a software module configured to provide an active mode and a standby mode, the active mode configured to maintain the internal node database and to provide access to the node database, the standby mode configured to maintain the internal node database as a mirror copy of an external node database, where the software module is configured to transition to the active mode when an unacknowledged client request is detected.

Finally, Applicants explained that Norin does not teach or suggest creating a node database containing information about the nodes, designating an active gateway node to maintain the node database, the active gateway node providing one or more access methods to access the node database, mirroring the node database in one or more standby server nodes, and

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encapsulating raw packets in a first protocol into wrapper packets in the desired protocol and tunneling the raw packets through the desired protocol.

Rejection of Claims 1-7, 9, 10, 13, 14, 19-25, 27, 28 and 31 Under 35 U.S.C. § 102(e)

The Examiner rejected Claims 1-7, 9, 10, 13, 14, 19-25, 27, 28 and 31 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,787,247 to Norin et al. (hereinafter "Norin"). Norin teaches a distributed database system, not a gateway configured to allow multiple nodes on a computer network to communicate using one or more protocols. In Norin, the data in the database is conventional database data (e.g., employee records, billing records, etc.) not information about nodes in the network. Norin does not teach or suggest an internal node database comprising information about nodes on a network.

Additionally, Norin does not teach or suggest protocol conversion. Thus, Norin does not teach or suggest a protocol converter to allow the nodes on the computer network to communicate using one or more data protocols according to information in the node database. Norin does not teach or suggest maintaining a mirror of a node database using a standby mode, where the database in the standby mode contains information about nodes and protocol conversions on a network.

Regarding Claim 1, Norin does not teach or suggest an internal node database comprising information about nodes on a network, a protocol converter configured to allow the nodes on the computer network to communicate using one or more data protocols according to information in the node database, wherein the one or more data protocols are transmitted over a network medium using a medium protocol, an application programming interface to communicate with the nodes, a software module configured to provide an active mode and a standby mode, the active mode configured to maintain the internal node database and to provide access to the node database, the standby mode configured to maintain the internal node database as a mirror copy of an external node database.

Regarding Claim 2 in combination with Claim 1, Norin does not teach or suggest that the internal node database includes rules that specify actions to be taken upon a state change of a client node.

Regarding Claim 3 in combination with Claim 2, Norin does not teach or suggest that the rules are simple rules.

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Regarding Claim 4 in combination with Claim 2, Norin does not teach or suggest that the rules are complex rules.

Regarding Claim 5 in combination with Claim 2, Norin does not teach or suggest a rules engine configured to interpret the rules.

Regarding Claim 6 in combination with Claim 2, Norin does not teach or suggest shims configured to translate rules into a rule definition language.

Regarding Claim 7 in combination with Claim 2, Norin does not teach or suggest that the state change includes a change in an instance variable of the client node.

Regarding Claim 9 in combination with Claim 1, Norin does not teach or suggest that the software module is configured to transition to the active mode when an unacknowledged client request is detected.

Regarding Claim 10 in combination with Claim 1, Norin does not teach or suggest that the gateway is further configured to tunnel a first protocol through a second protocol.

Regarding Claim 13 in combination with Claim 7, Norin does not teach or suggest an event handler configured to notify a user application when a change occurs in an instance variable of the client node.

Regarding Claim 14 in combination with Claim 1, Norin does not teach or suggest an object-oriented application programming interface.

Regarding Claim 19, Norin does not teach or suggest creating a node database containing information about the nodes, designating an active gateway node to maintain the node database, the active gateway node providing one or more access methods to access the node database, and mirroring the node database in one or more standby server nodes.

Regarding Claim 20 in combination with Claim 19, Norin does not teach or suggest interpreting and executing rules that specify actions to be taken when a state change occurs in a client node.

Regarding Claim 21 in combination with Claim 20, Norin does not teach or suggest that the rules are interpreted by a rules engine.

Regarding Claim 22 in combination with Claim 20, Norin does not teach or suggest generating event notifications when the state change occurs.

Regarding Claim 23 in combination with Claim 22, Norin does not teach or suggest that the notifications are provided to a dispatcher.

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Regarding Claim 24 in combination with Claim 20, Norin does not teach or suggest translating received data into a rule definition language.

Regarding Claim 25 in combination with Claim 20, Norin does not teach or suggest that the state change includes a change in an instance variable of the client node.

Regarding Claim 27 in combination with Claim 19, Norin does not teach or suggest activating one of the standby server nodes after the active server becomes inactive.

Regarding Claim 28 in combination with Claim 19, Norin does not teach or suggest encapsulating raw packets in a first protocol into wrapper packets in the desired protocol and tunneling the raw packets through the desired protocol.

Regarding Claim 31 in combination with Claim 19, Norin does not teach or suggest notifying a user application when a change occurs in an instance variable of the client node.

Accordingly, Applicants assert that Claims 1-7, 9, 10, 13, 14, 19-25, 27, 28 and 31 are allowable over the prior art, and Applicants request allowance of Claims 1-7, 9, 10, 13, 14, 19-25, 27, 28 and 31.

Rejection of Claims 8, 11, 12, 15, 26, 29, 30, 32 and 33 Under 35 U.S.C. § 103(a)

The Examiner rejected Claims 8, 11, 12, 15, 26, 29, 30, 32 and 33 under 35 U.S.C. § 103(a) as being unpatentable over Norin. Norin teaches a distributed database system, not a gateway configured to allow multiple nodes on a computer network to communicate using one or more protocols. In Norin, the data in the database is conventional database data (e.g., employee records, billing records, etc.) not information about the nodes. Norin does not teach or suggest an internal node database comprising information about nodes on a network. Moreover, Norin teaches database servers as being active, deleted (having no database data) or in some phase of deletion (e.g. delete pending, delete now, etc.). In the delete phases, the database data is not being updated or maintained. Norin does not teach or suggest a standby state configured to maintain the internal node database as a mirror copy of an external node database.

Norin does not teach or suggest converting from one protocol to another, and Norin does not teach or suggest communication on a power line medium.

Regarding Claim 8 in combination with Claim 1, Norin does not teach or suggest that the internal node database is updated by issuing ping requests.

Regarding Claim 11 in combination with Claim 10, Norin does not teach or suggest that the medium is a power line and the medium protocol is a power line protocol.

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Regarding Claim 12 in combination with Claim 1, Norin does not teach or suggest that the medium is a power line and the medium protocol is a PLX protocol.

Regarding Claim 15 in combination with Claim 14 Norin does not teach or suggest an internet browser configured to provide a user interface to information in the internal node database.

Regarding Claim 26 in combination with Claim 19, Norin does not teach or suggest issuing ping requests and listening for responses to the ping requests, the responses used to update the node database.

Regarding Claim 29 in combination with Claim 19, Norin does not teach or suggest that the medium is a power line and the medium protocol is a power line protocol.

Regarding Claim 30 in combination with Claim 19, Norin does not teach or suggest that the medium is a power line and the medium protocol is a PLX protocol.

Regarding Claim 32 in combination with Claim 19, Norin does not teach or suggest using an internet browser to view information in the node database.

Regarding Claim 33 in combination with Claim 19, Norin does not teach or suggest using an internet browser to control nodes on a power line network.

Accordingly, Applicants assert that Claims 8, 11, 12, 15, 26, 29, 30, 32 and 33 are allowable over the prior art, and Applicants request allowance of Claims 8, 11, 12, 15, 26, 29, 30, 32 and 33.

Summary

Applicants assert that Claims 1-16 and 19-33 are allowable over the prior art, and Applicants request allowance of Claims 1-16 and 19-33. If there are any remaining issues that can be resolved by a telephone conference, the Examiner is invited to call the undersigned attorney at (949) 721-6305.

Respectfully submitted,
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Dated: Sept 22, 2023

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